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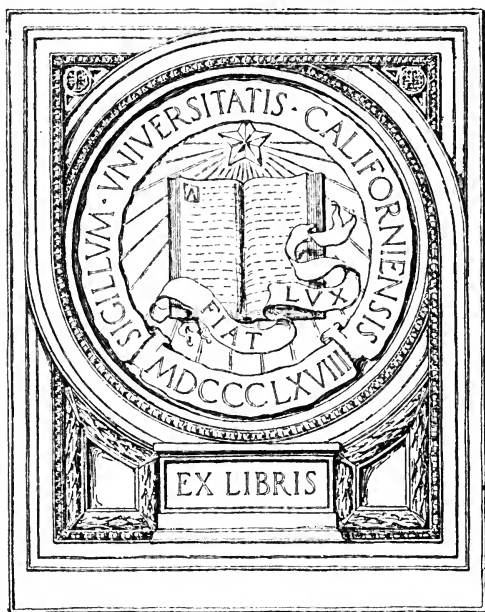
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REPORT

OF

HENRY SNYDER

**Superintendent of Schools, Jersey
City, N. J.**

ON THE

HIGH SCHOOL SITUATION

IN

HARRISBURG, PA.



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REPORT

OF

DR. HENRY SNYDER

JERSEY CITY, May 11, 1912.

MR. F. E. DOWNES,
Chairman.

DEAR SIR:

In presenting this report, it is proper that I should state at the outset that in my study of High School conditions in Harrisburg I had the cordial co-operation and active assistance of all persons directly responsible for the satisfactory solution of the problems presented, whom I met while in the city. This friendly attitude has made my work pleasant, while at the same time the desire, expressed by all, to follow a policy which might be established as most advantageous for the city and its school population has encouraged me to hope that such a policy might be outlined. I desire in particular to express my appreciation of the assistance of Messrs. McFarland, Hain and Jennings of the Board of Trade, of Messrs. Boyer, Boll, Houtz of the Board of Education, of Secretary Bell, Secretary Hammelbaugh, and of Superintendent Downes.

The subjects of my inquiry are included in the following statement of instructions:

"The points to be covered are as follows:

1. The present need of a new high school.
2. Whether we shall have one or two.
3. The location or locations.
4. The accomodations and facilities that should be provided to meet modern educational ideas and demands.
5. The probable cost of the project not including sites and furnishings.
6. The probable length of time that such building or buildings will meet the high school needs of the community."

I shall discuss these in the order in which they are stated above.

1. *There is, without question, an immediate, pressing need of a new high school.* A visit to the present Central High School is sufficient to convince anybody, it seems to me, that there is no reason for discussion on this point. I am not justified, however, in dismissing the matter with this *ex cathedra* statement, and, therefore, give my reasons.

The sufficiency of a school building must be judged by its capacity, or the number of pupils whom it can properly accommodate, and by the measures and facilities which it provides for the comfort and protection of teachers and pupils and for the effective instruction of pupils. It is well known that the building cannot accommodate all the pupils of the High School and that an "overflow school" has been established in the Annex on the other side of Forster street.

The high school building falls far short of satisfying the demands now made upon a building of this character. There is in its construction the most glaring evidence of the lack of the thoughtful consideration which should be given to the special personal needs of pupils of high school age. Except for a few alterations or improvisations, made from time to time, it must be regarded simply as a school building, not as one specifically designed to meet the demands of a high school. The conditions surrounding the pupils are very unsatisfactory. I should be inclined to speak strongly of the conditions in the buildings which compose the "Annex," but refrain from doing so because their use is intended to be only temporary.

Since the High School building was erected, not only standards of construction but educational standards have been raised. Moreover, methods of instruction have been changed, the scope of instruction has been amplified, and the emphasis to be placed on the several forms of instruction has been shifted. The building, however, preserves its antiquated mould, by which the training of pupils must be shaped on old lines, in spite of progressive teaching. To illustrate, effective science teaching requires individual experimentation and investigation on the part of all pupils. The physical and chemical laboratories in the Central High School are sadly lacking in space and equipment. Courses in physics and

chemistry, which would now be regarded as educationally satisfactory, can not be given in them. No provision is made for satisfactory instruction in biology or physiography, and there are no laboratories for these subjects. Systematic physical training must be absent because there is no gymnasium. Facilities for accommodating the pupils during the lunch period are lacking. There is neither the space nor the equipment for organizing courses of instruction in household arts or vocational work for girls. It would be easy to specify other details, more or less important, in which the building is deficient for high school purposes.

2. *Should there be one or two new high schools?* This question does not arise from general educational considerations, but has a special significance at this time by reason of the grouping or distribution of population peculiar to Harrisburg.

From statistics furnished me by Superintendent Downes it appears that of 870 pupils at present attending the Central High School 547, or 63 per cent., reside west of the Pennsylvania Railroad, and 323, or 37 per cent., reside on Allison Hill, east of the railroad. Of the 547 residing west of the railroad only about 50 reside south of North street. The last group is so small that it must be regarded as negligible in this discussion.

It would be easy to aim at satisfying an extreme educational ideal and to say that two new schools should be supplied, one for each of the two sections most deeply concerned. It would also be easy to present an apparently strong argument in favor of such a policy by urging the future rapid growth of the sections and the ultimate need of two schools. But I am certain that this would not be a wise municipal policy. The number at present attending the Central High School does not justify the large expenditure involved. Even though the high school attendance is bound to continue to increase rapidly, it will be some time before it becomes so great that another school will be needed. As a schoolman I might be expected to advocate a profusion of high school facilities, but as one vitally interested in progress in all lines of school work and in all phases of municipal improvement, I can not consider it wise to provide high school accommodations far in advance of

the need for their use, if other interests of the school department or of the city are prejudiced thereby.

Furthermore, I do not regard it good educational policy to establish a small or weak high school. It is true that the section west of the railroad is alone capable of supporting a strong, efficient, well-attended high school, as is made clear by the statistics of attendance given above. But this is not true of the Hill section, which, as has been shown, furnishes 323, or 37 per cent., of the present pupils of the Central High School. It must be assumed that if a new high school were to be erected in this section, it would be of the most approved type, and would contain all the facilities and offer all the courses of instruction now found in our best high schools. I am convinced by all the data which I have been able to gather that the pupils would demand all such courses and that the distribution of pupils among these would be about the same as that which would prevail in the other high school. From statistics furnished me by Secretary Bell it may be safely concluded that the population of the Hill section is at least 23,000, or somewhat more than one-third of that of the city. So also the number of pupils from the Hill attending the Central High School is somewhat greater than one-third of the whole number. Of the 256 pupils reported as attending the Technical High School 85, or 33 per cent., come from the Hill section, which is about the same proportionately as the number from this section attending the Central High School. Principal Steele informs me that in the Central School the pupils of the Hill section make choices of courses in about the same way as other pupils. There is, furthermore, nothing in the physical appearance of the Hill section or in the characteristics of its people, so far as I can learn, to justify one in concluding that the pupils would make choice of courses differently from those residing in the northern part of the city. Assuming this to be true, it would be found that some of the classes would be small, so small in fact that advantageous instruction could not be given with sufficient economy. There would, therefore, soon appear a tendency to eliminate such courses as did not appear profitable because of the small number of pupils choosing them, and thus to limit the opportunities which ought to be available to the pupils. If there should be any danger

of this, and it is practically certain that there would be, it would be better for the pupils to attend a strong high school, organized with a view to the effective and economical distribution of pupils among the classes, even at the expense of some inconvenience.

I understand that the suggestion has been made that the pupils of the Central High School be grouped in two high schools, one for boys, the other for girls. I desire to offer the following reasons for not according this plan my approval:

1. Experience has abundantly shown that there is no valid objection to co-education in the high school. On the other hand it tends to improve the demeanor of the pupils. It facilitates the classification of pupils and the assignment of teachers to classes, and thus promotes economy in the employment of teachers without decreasing the effectiveness of the school.

2. There would be at present in the high school for boys about 298 pupils. The school would thus be small and open to the objections which I have urged above in this report.

3. If the plan involves the erection of two new buildings the cost would be a serious obstacle.

4. If but one new high school is intended the problem involved is the same as that which we are discussing in connection with the new general high school, namely, the location, and presents the same difficulties.

5. If one of the schools is to occupy the present Central High School building, the plan is objectionable for reasons which I have already stated in discussing the impropriety of continuing the use of that building for high school purposes.

I would therefore recommend the erection of but one new high school.

This recommendation should, however, be regarded as conditional upon the advantageous location of the school and subject to the modification which I shall suggest hereafter.

3. *The Location of the School.* I do not understand that it is your desire that I point out precisely the plot which should be acquired for the proposed new school. Such action on my part would require the consideration of such elements as size, shape, drainage, height of neighboring buildings, geological conditions

affecting foundations, cost, etc., all of which are, it is true, pertinent to an inquiry of this character, but also belong to a discussion of the site of any school. All of these are important, but I shall for the present assume that the site which may be selected will be satisfactory so far as these elements are concerned, and shall point out with sufficient precision the part of the city in which it seems to me the school should be located.

The element with which we are most concerned is naturally accessibility. It is easy for one who has studied the topography of Harrisburg, though he be a stranger, to notice that the Park surrounding the State Capitol is the center of accessibility for all parts of the city. This is especially accessible to the two sections which send most pupils to the High Schools, namely, the Hill section and the section north of North street, whether the pupils ride or walk to school. If pupils use the trolley it is possible for them to reach this vicinity without transfer. This consideration must not be regarded as unimportant. At present all trolley cars go to Market Square, where, I understand, all transfers must be made. Those pupils of the Hill section who must use the trolley may be forced to follow a circuitous route by way of Market Square, and thus lose much time, if they are not considered in locating the school. But I regard it most important that the school be so located that all or nearly all pupils may walk to it with comparative ease. To very many parents the car fare of a child attending school is an important item. If, as often happens, this expense is necessary for two or more children, it becomes a serious burden. It is often the decisive factor in terminating the school attendance of children whose parents cannot afford this outlay.

At present no special school rates are given to school pupils by the trolley company. In many cities such rates are given without the privilege of transfer. While, as I am told, there is at present no probability of any concession of this kind to high school pupils, it is not unlikely that it will at some time be made.

It may be said that the ambitious pupils, eager for a higher education, will walk any distance to school, if necessary. But it is not wise to test the endurance of children too severely in this way, particularly if they are not robust. It should be our policy

to encourage attendance upon the High School by making it as easy and convenient as possible.

It is because of its nearness to the center of accessibility that the location of the Technical High School is a good one. For the same reason, the present Central High School is generally regarded as conveniently located.

It is particularly on the ground of accessibility that I would recommend that a site be chosen for the new high school very near State House Park, or, better still, fronting on the Park. There are eligible sites on North street to which no technical exceptions can be taken.

Aside from the advantages of such a site for school purposes, the Board of Education ought, if it is at all possible, to take advantage of the opportunity which the presence of the Park offers, to participate in a notable way in the remarkable progress which the city has made in the last ten years, and is still making, in its numerous successful projects for civic betterment,—an opportunity which becomes all the more valuable when the proposed extension of the Park eastward, its consequent increase in attractiveness and its possibilities as a civic center of the finest type are considered.

Many noteworthy buildings are already located about the Park. The new high school will undoubtedly be a monumental building of first class construction, and of attractive architectural design, and next to the state buildings will be the most striking public building in the city. It will, I am sure, be a cause for regret hereafter, if the building, which, because of its durable construction, will long outlive the bonds which must be issued for its erection, does not find a place among the many attractive structures which will gradually be grouped about the Park.

I fully realize that the cost of such a site will undoubtedly be great, perhaps beyond the means of the city. I have not, however, allowed my fears in this respect to dissuade me from urging its unusual claims to consideration, in the hope that strong efforts will be made to secure it. This may after all not be impossible to a city which has already in several instances accomplished what formerly seemed impossible.

If a site fronting on the Park can not be secured I would urge

again that accessibility be considered and that the school be located very near the Park.

It has been suggested, I am told, that the remainder of the block on which the Central High School is located be acquired, or that a new building, to be connected with the old, be erected. This suggestion is based, probably, on the convenience of the site, which, as has been stated, is generally acknowledged as easily accessible to the pupils of the school, and upon the feeling that such a project would be more economical.

I find myself unable to endorse this suggestion. It is impossible to extend the present buildings in a satisfactory manner. There are structural features, fundamental or vital to its plan of construction, connected with both its exterior and interior, which, according to present standards, are exceedingly objectionable. These cannot be altered and must be allowed to remain in it. Their repetition in the proposed new extension will not, however, be permitted by established principles of school construction, by popular opinion, or by law. The building, therefore, when enlarged, could not be an architecturally uniform or homogeneous building, and would undoubtedly be condemned as an unsatisfactory building. If a new building were erected in the rear of the present building the incongruity above mentioned would be all the more striking. Furthermore, the administration of a high school located in two buildings of such different types, not forming a complete, compact whole, would be difficult. It would be found, besides, I believe, that the plan would not prove sufficiently economical to warrant such violations of the principles of school construction, of architectural taste, and of effective administration. The cost of necessary alterations in the old building combined with the cost of the new building would not be far enough below the cost of an entirely new building to justify such unsatisfactory results.

I am strongly of the opinion that the block on which the present building stands can be effectively utilized for high school purposes only by demolishing all the buildings on it, including the High School.

If the plan suggested includes such demolition, and the erection on the entire block of a new high school building, there can be no

valid ground for objection so far as the plan and operation of the school are concerned. In fact, if financial considerations were entirely favorable, it might be wise to urge this plan. The present building has, however, considerable value for school or other purposes, the destruction of which involves an economic waste, which, I believe, can not be justified at present, particularly in view of the difficulty which would be encountered in attempting to accommodate the pupils of the school while the new building is in course of erection. It is far better to preserve the building for other uses and acquire a site elsewhere.

The Board of Education has purchased a site for the new high school at the corner of Third and Reily streets. I have studied this selection with great care from all points of view, and with the assumption in mind that there must have been convincing reasons for it, because it was made by the members of the Board of Education, who are in daily contact with pupils, their parents, and other citizens, and who know existing conditions better than a stranger can. I regret that I have not been able to convince myself that this choice was a wise one, if but one new high school is to be built. It makes the distance, which pupils of the Central High School, who reside on the Hill, must walk about one-half mile longer than at present, while those who ride must go all the way by trolley, must transfer at Market Square and must suffer the loss of time caused by the circuitous routes over which they must travel. Besides considering distances we must also consider the character of the methods of approach to the school. The pupils who reside north of North street go to the school by routes which are practically level and attractive. The same can not be said of those residing on the Hill. The Reily street site makes it easier for nearly all of the former to attend the High School, while it increases the inconveniences and disadvantages of *all* of the latter. A comparison of the numbers of pupils involved, 547 of the former, and 333 of the latter, would not seem to justify such an evident distinction. I fear that many of the Hill pupils will be discouraged from attending the High School.

I ought to say that in addition to a study of the city map and a calculation of the distances involved, I have made a practical test of these distances by walking over the routes which pupils resid-

ing on the Hill must follow in going to a school located on the Reily street site. I feel sure that any one who makes a similar trial will agree with me that the increased distance is an appreciable burden to the pupils of the Hill.

As has been said, the location of the Reily street site is extremely favorable to the section north of North street. If it is the intention that the new building shall provide for this section and that ultimately another building is to be erected on the Hill, no objection can be made to the location mentioned other than that it may necessitate the erection of a small, ineffective high school on the Hill. At the same time it must be remembered that the erection of a new high school on Reily street will itself tend, to some extent, to delay the fulfilment of this policy. It will have a tendency to divert more of the boys who reside on the Hill to the Technical High School, because that is nearer their homes. This improvement will, besides, eventually operate as all improvements of importance do. It will promote the more rapid growth of the northern part of the city and will, to the same extent, retard the growth of the Hill section, because families, in which there are children who attend or expect to attend the High school, will naturally locate in the section more favorably situated, other things being equal. It must, therefore, be expected that the imperative necessity for the erection of a complete high school on the Hill will be deferred.

Realizing the force of these considerations I must, as I have intimated heretofore, modify my recommendations in the contingency that a new high school is erected on Reily street, and suggest that, when this building is erected, sufficient rooms and facilities be provided at once in the Hill section for all the pupils residing there and attending the first and second year classes in the High School. There are at present 107 first year and 87 second year pupils of this kind. The third and fourth year pupils, numbering at present 65 and 64 respectively, may be required to attend the main high school, until the number of pupils warrants a complete high school. I assume, of course, that the facilities in this "branch high school" will be as complete and the instruction as thorough as in the main high school. As it is suggested that attendance at the school be limited to first and second year pupils,

the cost of providing the necessary rooms and equipment is comparatively moderate, because much of the expensive laboratory equipment needed for advanced scientific instruction in a complete school will not be necessary in this. Moreover, the rooms may be so constructed that with some modifications they may afterwards be used for elementary school purposes, or they may form part of a high school, designed at the beginning in its entirety, to be completed when there is need for it, whichever plan may seem to be the more advisable for financial reasons.

Another plan may be suggested if a complete high school equipped for all four years of the course is erected on the Reilly street site. All the first and second year high school pupils who reside on the Hill, and all the elementary school pupils of the ninth year or grade and, perhaps, of the eighth year, who reside in the same section, may be grouped in a school to be provided for them, while those of the third and fourth years of the High School would attend the new building. If the ninth elementary grade alone is included, such a school would at present contain 336 pupils, while 676 would be left in the new high school building. If the pupils of the eighth elementary grade were also included the pupils in the Hill school would number about 500. Due allowance must, of course, be made for future increase. There is a growing sentiment among educators in favor of schools such as this, which would be called a junior high school, or sub-academic school, even in sections in which a resort to expedients is not necessary. It may be urged as an added advantage of this plan that additional accommodations are provided for elementary school pupils as well as for high school pupils.

This junior high school should, of course, be erected with the same foresight and should contain the same approved facilities as a complete high school, except that it should be adapted to the needs of the pupils for whom it is intended. The typical plan for schools of this kind, and the one generally favored, is to group the pupils of the last two years of the elementary schools with those of the first year of the high school as a "junior high school," and those of the remaining three years of the high school as a "senior high school." In our problem, besides considering classification from an educational point of view, we must keep in mind

the necessity of removing the crowding in the Central High School, and hence, if we follow a policy of this kind, must modify the customary plan to suit the circumstances.

If the proposition to establish a junior high school on the Hill should receive favorable consideration, it would be well to go farther and consider whether the new school to be erected on the Reily street site should not also be a junior high school. The plan would then be to remodel entirely the present Central High School building, which will become a senior high school, to assign to it only the pupils of the higher grades from all parts of the city, and to assign to the junior high schools the pupils of the lower high school grades and of the highest elementary grades. The manner in which the grades shall be thus distributed must be determined by a careful consideration of the number of pupils contained in each. To illustrate, if the pupils of the ninth elementary and those of the first and second high school years are grouped to form the junior high schools, the junior high school on the Hill would at present have 336 pupils, that on the Reily street site would have 649, while the senior high school (in the Central Building) would have 327 pupils. If we group the eighth and ninth elementary years with the first high school year, the result would be as follows: Junior high school on Hill, about 410 pupils, junior high school on Reily street, about 775 pupils, senior high school (in Central Building), 590 pupils. By this latter scheme of distribution too many pupils are left in the Central Building, so that it would soon be overcrowded again, as the school grows. It seems to me clear that the former plan of distribution and classification is best adapted to present conditions, if junior high schools are to be established.

The high school system would thus include the Technical High School for boys of all grades, the Central High School, or senior high school, for the higher grades only, a junior high school on the Hill, and a junior high school on Reily street, both for the lower high school grades and the higher elementary grades.

The serious objection to the last two plans is that the immediate expense would probably be greater than that of erecting the one new building which I have suggested. I ought also to say that

there is grave doubt as to the possibility of remodeling the Central High School building in a satisfactory manner.

If we neglect this financial objection, the plan last mentioned, which provides for the reconstruction and improvement of the Central High School building and the erection of two junior high schools, has an obvious advantage. The pupils of the lower school grades are enabled to attend schools nearer their homes than at present, while those in the higher grades have no greater distance to travel than at present. There is danger, however, in adopting this as a permanent policy for the future, because it seems to me likely to obstruct the logical development of the high school system. You have one general high school, from which have been separated the boys who elect industrial courses. Continuing this process, the logical course seems to me to maintain the general high school, in new quarters and with up-to-date facilities, of course, until such a time as a further step must be taken, when it will be proper, logically, to secure relief by segregating the girls who elect vocational courses in a new building. There will then be three high schools, a general high school, a special high school for boys who elect industrial courses, and a special high school for girls who elect vocational courses. A high school system containing three such schools will be sufficient for Harrisburg, considerably beyond the period which I have been asked to consider.

If, however, the plan is made sufficiently comprehensive, if the junior high schools are properly constructed and equipped for all necessary kinds of instruction, if the Central High School building is adequately improved, and, if above all, those who manage educational affairs hereafter, will insist that a new building be provided in place of the Central High School building as soon as possible, which shall contain, besides a general high school, a special vocational school for girls, I see no educational objection to the plan. I do not wish to be understood as favoring this alternative to the exclusion of all others. I have presented it with others in order to give full consideration to all plans and have suggested it as an expedient, because I think it desirable to make high school facilities accessible and thus remove the obstacles to high school attendance which existing circumstances seem likely

to create. As I have stated, I believe one general high school of the best type, favorably located, to be preferable.

The new School Code very wisely requires that when a new school building is erected a suitable playground be provided. It may be urged that in order to comply with this requirement the new site should be large enough to offer facilities for recreation to the high school pupils. I should be glad if such an ideal could be realized. But it must be remembered that a playground suitable for high school pupils must be quite different from that intended for pupils of elementary schools. In the former must be included provisions for athletic sports and games for which a large area or field is required. None of the sites which have been considered in connection with the present problem can be regarded as large enough for these, nor is it necessary that a new playground of such a character be provided in connection with the proposed new school, for the city has already complied substantially with the Code in that it has provided and maintains the playgrounds or athletic field on the Island, which very generously supplies the needs of high school pupils. I have, therefore, disregarded this element in discussing locations.

4. *The accommodations and facilities that should be provided to meet modern educational ideas and demands.*

The building may be three stories in height, but ought not be higher. Although it may at times be necessary to construct a fourth story, it is better practice to avoid it, if possible, particularly in a school used by girls of high school age.

According to the School Code a school of three stories must be of fire proof construction.

The building should contain the following:

Accommodations for 1,400, or preferably 1,500, pupils. (Details of this estimate will be given later.)

Recitation rooms for all high school subjects, including commercial branches.

Provision for study rooms.

Special lecture rooms.

General stock room.

Laboratories for physics, chemistry, biology, and physiography.

Special stock rooms accompanying the laboratories.
 Special laboratory and workshop for science instructors.
 Photographic dark room.
 Sewing rooms.
 Fittings rooms.
 Stock rooms connected with sewing rooms.
 Kitchens with pantries.
 Suit of small rooms to be used as dining room, etc.
 Laundry.
 Lunch room.
 Cloak rooms with individual lockers.
 Principal's offices and reception room.
 Library, preferably to be used as a branch of the free public library.
 Provisions for classes in vocal music, either by separate room or by connecting rooms.
 Teachers' rooms.
 Rest room or hospital room for pupils.
 Toilets on every floor in addition to those in the basement.
 Drinking fountains.
 Auditorium.
 Two gymnasias, one for boys, the other for girls. One of these should be large enough for basket ball.
 Shower baths.
 Plunge, located between the two gymnasias so as to be accessible to both.
 Work room and facilities for janitors.
 Elevator to be used as book lift.
 A few electric outlets for use in connection with sewing and laundering.
 Fire lines with stands of hose.
 Electric bell system including fire signal.
 House telephone system.
 Automatic clock system.
 (All electric wires should be carried in metal conduits).
 Direct heating system.
 Automatic heat regulation.
 System of power ventilation.

Provisions for air filtration.

Humidifying plant.

Vacuum cleaning.

Provision on the roof for physical and meteorological observations and experiments, (e. g. wireless telegraphy) made in connection with class work.

It must be assumed that the building will be planned and erected in accordance with the requirements of the School Code and with the recognized rules of school construction, the details of which cannot, of course, be given here.

I have suggested by topics the provisions which must be made in the new building and have omitted the detailed features which are necessary to make these provisions effective. They must be considered in preparing the plans.

In the contents of the building as specified, approved class rooms for all subjects including commercial subjects, and approved science laboratories with their accessories are included, so that all instruction may comply with the highest standards.

It will be noticed that in addition to the several courses of instruction now given in the Central High School, the instruction of girls in household arts is provided for. There should be not only the general courses which give valuable training to all girls, but special courses which aim to give vocational training in all kinds of sewing, in millinery, and in cooking, to correspond with the industrial courses available to boys in the Technical High School.

I have not included special study rooms large enough to accommodate all the pupils at one time. To do this would require at least as much space as is occupied by the auditorium. It must be remembered that from four-fifths to three-fourths of the pupils should be in class rooms and laboratories at all times and that consequently only one-fifth or one-fourth of them should be in study rooms. To provide space for all, which is used at one time by only a few, must be regarded as wasteful. Provisions for the study periods of pupils may be made in other ways. If it is necessary to assemble all the pupils at one time, the auditorium may be used for the purpose.

The building should be so planned and equipped that it may be used for evening school purposes. It will undoubtedly be found

that many will avail themselves of the opportunities to receive vocational instruction if such be offered.

So also the use of the building by the public out of school hours must be kept in mind. The auditorium particularly may become very useful, but other features, such as the gymnasias, the plunge and library may be made of general service and will surely be appreciated. For this reason it is desirable that the auditorium should be easily accessible from the street.

5. The probable cost of the project, not including sites and furnishings.

The building must be fire-proof, as has been said, and should be of attractive and imposing architectural design. It should be remembered that the building will be considerably higher than most of the buildings which surround it, and will be visible at a great distance, and that, therefore, every side should be a front. It is a mistake to treat the sides or even the rear of such a building with indifference, or to make them unattractive. I do not mean that all the elevations should be regarded as of equal importance or that they should receive equal elaboration, but I do urge that each side be treated appropriately. All sanitary features must comply with the requirements of the best scientific standards and with the most exacting sanitary laws and ordinances.

I believe that the cost of the building need not exceed \$450,000. I base this estimate on the standards of wages and hours of labor as given me by Secretary Bell and on the assumption that due economy will be exercised in planning it and no extravagance will be exhibited in the choice of materials for the interior as well as the exterior. It is, of course, possible to make the cost much more than the amount which I have stated.

6. The probable length of time that such building will meet the high school needs of the community.

One of the most striking phenomena in the educational history of this country is the rapid growth in high school attendance during the last twenty-five years. The reports of the United States Census show that the population of the country increased from 62,622,250 in 1890 to 91,972,266 in 1910, or about 47 per cent. During the same period the enrollment in the elementary schools

grew from 12,722,581 to 17,506,175, or about 38 per cent., while the enrollment in the public schools leaped from 202,963 to 915,061, thus showing an increase of about 351 per cent. That Harrisburg participated in this phenomenal growth is shown by the reports of the United States Commissioner of Education, in which we find that the total enrollment in the elementary schools of Harrisburg in 1890 was 6,604, and in 1910, 9,538, which shows an increase of 44 per cent. During the same period the enrollment in the High Schools grew from 430 to 1,073, or 150 per cent.

A consideration of some of the details of this growth, the figures of which have been furnished me by Superintendent Downes, is interesting as well as profitable for our present purpose. In 1900 there was but one high school, as was the case until 1904, when the Technical High School was established. As the new building of the Technical High School provides adequately for its pupils at the present time, they should not be considered in the estimates which we must make for the new Central High School. In 1904 the enrollment of pupils in the latter for September, which is generally the highest of the year, was 604. For each of the succeeding years to and including 1911, it was respectively, 609, 662, 706, 697, 759, 857, 869. This increase in the Central High School alone during the seven years was therefore 265, or about 44 per cent. If we assume that conditions will remain the same and that the past rate of growth will continue constant in the future, the enrollment in September, 1918, ought to be 1,250, and, by the same reasoning, it ought to be 1,350 in 1920. If we could be guided by such calculations alone, we would be justified in claiming that a school accommodating 1,400 pupils would be sufficient until 1920. If we relied solely on an estimate made in this way we should probably find eventually that we had deceived ourselves, for in the past the rate of growth has itself increased.

As a matter of fact, this increase in high school enrollment is the resultant of a number of forces operating with varying degrees of intensity, at different times in opposition to those influences which incite pupils to leave school, but tending always to produce a condition of equilibrium between total population and high school enrollment, that is, toward a condition in which the ratio

between total population and high school enrollment will remain the same and the rate of increase of the latter will be constant. In order to base our estimate on reliable data it is necessary to consider these forces or tendencies briefly. They may be enumerated generally as follows:

1. General increase in the population of the city.
2. Special increase in population due to annexation of adjacent territory.
3. Acquisition of new industries.
4. Increased desire on the part of young people for higher education.
5. Growing tendency on the part of commercial and industrial interests to demand higher educational standards.
6. Closer adaptation of courses of study in high schools to current popular demands, e. g. greater freedom in choice of studies, provisions for vocational instruction, continuation schools, etc.
7. Reduction of amount of retardation in all grades.
8. Increase in school accommodations.
9. Improvement in schools and in their facilities, by which they become more attractive and their instruction becomes more efficient.
10. Accessibility of the schools.
11. Greater provisions for protecting the health of children, preventing illness, and thus promoting attendance.
12. More rigid enforcement of compulsory attendance laws.

On glancing at these we may notice some which are likely to remain constant, others which are bound to grow in influence, and still others which have not yet begun to operate. I may cite the fourth, fifth, seventh, eleventh, and twelfth, above enumerated, as influences which are bound to grow stronger in the future. While the second and third causes, mentioned above, operating to increase high school enrollment, may become active at any time, they are matters of conjecture, and can not be used in estimates such as this. I regard the sixth, eighth and ninth factors mentioned as destined to increase the rate of growth in high school attendance in a most striking manner, and to cause it to exceed considerably that produced by the general increase of population. Conclusive evidence might be adduced from the experience of other cities to

justify this statement, for in all cases these improvements have been followed by an unusual growth in attendance. But I believe sufficient evidence can be secured by an inspection of the statistics of attendance on your own high schools.

Although the average enrollment in all the schools of the city increased from 8,862 in 1910 to 9,352 in 1911, the enrollment in the Central High School for September, 1911, was only 12 larger than in September, 1910. This small increase, under the circumstances, is abnormal. And yet to any one familiar with the undesirable conditions prevailing in this school the reason is clear. These conditions repel pupils who otherwise would continue to attend. When these are removed, and more and better accommodations are supplied the enrollment is bound to increase rapidly.

Of the 870 pupils enrolled in the Central High School 298 are boys. In the Technical High School 256 boys are enrolled. Of the 1,126 high school pupils in the city 554 are boys and 572 are girls. The number of boys is unusually large, compared with the number of girls, or rather, the number of girls is smaller than we should expect, for because of the necessity and opportunities for their employment the number of boys attending high schools is generally considerably smaller than the number of girls. Two conclusions must be drawn from this fact: first, the attendance of the girls is the more seriously affected by the unfavorable conditions, and second, the opportunity for vocational instruction which is offered the boys operates as an incentive to stimulate the attendance of boys, while this opportunity is not offered the girls, and if instruction of a like nature, appropriate to girls, such as courses in the household arts, be offered, their attendance will increase very rapidly.

The popularity of vocational instruction is well illustrated in the growth of the Technical School, which in September, 1904, had an enrollment of 55, and in September, 1911, 255.

Confidence in the estimates which I have made will be increased if we approach the problem in a different way. In 1890 the population of Harrisburg was 39,385, in 1900, 50,167, and in 1910, 64,186. The increase in the decade ending in 1900 was about 27.4 per cent., and in the decade 1900-1910 it was 27.9 per cent.. Assuming that the population will increase at the same rate, it will

in 1920 be about 82,000. Using the statistics of attendance as reported by the United States Commissioner of Education as a basis, we find that in 1890 the ratio of high school pupils in Harrisburg to population was 1 to 92, in 1900, 1 to about 78, and in 1910, 1 to about 60. It will be noticed that the rate of growth in high school attendance has increased steadily in spite of the fact that the opportunities for the employment of young people offered by acquired industries have also increased. This progress in the rate of growth is due to forces which I have mentioned, and which, I am sure, will operate with greater vigor in the future. I believe it is a conservative estimate to say that in 1920 the ratio of high school pupils to population will be not less than 1 to about 45. On this basis the number of high school pupils would be about 1,820. Making due allowance for the influence of additional improved high school facilities of which pupils have not had the advantage heretofore, we may very reasonably conclude that the enrollment will be near 1950 in 1920. Of this number about 450 or 500 may be estimated for the Technical High School and 1,450 or 1,500 for the Central High School.

I am inclined to think that the estimates which I have made are too low and that the attendance will increase faster than I have indicated. It is altogether likely that the numbers mentioned will be reached before 1920, probably by 1918, that is, if the new high school and the progressive facilities and courses of instruction which I have suggested are provided at once. I have, however, preferred to be conservative, because it does not seem wisely economical to provide facilities at great expense so far in advance, that they will be unused for a long time, and because it is more prudent to follow a program of construction which will provide accommodations for a reasonable time and which will enable you to adapt yourselves to new educational needs and demands, now perhaps not fully appreciated, but bound to arise in the future.

In conclusion I submit the following

SUMMARY.

1. Improved high school accommodations are undoubtedly necessary.
2. I would recommend that one general high school be erected.

This recommendation is, however, subject to the modification presented under "3" below.

3. I would recommend, as the most desirable location, a site near State House Park, preferably fronting on the Park.

If a new high school is erected at the corner of Reily and Third streets, I regard this as sufficiently inconvenient for the high school pupils residing on the Hill to justify the adoption of a supplementary plan whereby satisfactory facilities will be offered them. Of the several plans presented I should at the present time favor that, as an expedient, in accordance with which the Central High School will be so thoroughly reconstructed and amplified as to provide accommodations of the best and most comprehensive type, will be denominated a Senior High School, and will receive only pupils of the higher grades, and two Junior High Schools of approved plan and construction, will be provided, in the northern part of the city (on the Reily street site), and on the Hill, which will receive pupils of the lower high school grades and the ninth elementary grade, or the eighth and ninth elementary grades.

4. A high school accommodating 1,400, or preferably 1,500 pupils, and containing the most approved facilities is suggested.

5. The cost need not exceed \$450,000.

6. Assuming that the population of Harrisburg will increase as rapidly in the future as it has in the past, such a building, if erected at once, will supply the high school needs of the city until 1918, and perhaps until 1920.

Respectfully submitted,

HENRY SNYDER.

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